
Introduction

Denis Helic

- ▶ Multimediale Informationssysteme 1 (VO 706.052)
- ▶ Multimediale Informationssysteme 1 (KU 706.053)
 - ▶ Elective (optional) course for Telematics Master
 - ▶ Subject area catalogue: Information Systems, Multimedia, Modeling

- ▶ Multimediale Informationssysteme (VO 706.152)
- ▶ Multimediale Informationssysteme (KU 706.153)
 - ▶ Obligatory course for Geometrics, Technical Mathematics (Information Processing)
 - ▶ Elective (optional) course for some other study fields (e.g., Information Technology 716)

- ▶ Important for Bachelor (Telematics, SE)
- ▶ Only as a free course!
- ▶ If you continue with the Master studies you cannot make this course again!

▶ Who is talking?

Name: Denis Helic

▶ How can I reach him?

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- ▶ Language
 - ▶ Lectures in English
 - ▶ Communication in German/English
 - ▶ If in German: please informally (Du)!
 - ▶ Constructional Example: German/English
 - ▶ Examination: German/English

Organization of the course

- ▶ Lectures: Wednesday, 12:15 – 13:45, HS i12
- ▶ Examination: Dates in TU Online, written exam, 90 mins, 8 questions
 - ▶ Three dates in each term (probably: October, November, January)
 - ▶ Questions are included in the script and can be accessed on the course Web site
- ▶ Registration for Lectures (VO), Exercise (KU) and examination is required (in TU Online System until 23.03.2004)
- ▶ Scripts, Lecture Slides, Examinations in PDF:
(<http://courses.iicm.edu/mmis>).
- ▶ Newsgroup `tu-graz.lv.mmis` (`news.tu-graz.ac.at`)

- ▶ Goal: Overview of Multimedia Information systems and the technology that these systems are based on
 - ▶ Technology vs. Design (Art)
- ▶ 4 big areas
 - ▶ Information Systems in General
 - ▶ Markup Languages
 - ▶ Server-side Programming
 - ▶ Digital Media

- ▶ Information Systems in General
- ▶ Internet - technical background: Short overview, how and why does Internet work?
- ▶ World Wide Web: What is it? What can WWW do? Why is WWW the way it is? How does WWW work? How can I find information on WWW? ...
- ▶ Searching on the Web: Google, Teoma, ...

- ▶ Markup Languages
- ▶ In which data formats do we present information on WWW and Internet?
How do we store this information on the server side?
- ▶ HTML, XML, SGML
- ▶ Displaying Markup Languages: CSS, XSLT, XSL-FO

- ▶ Server side programming
- ▶ CGI, PHP, Java Servlets
- ▶ Generating dynamic content from databases.
- ▶ Which approaches do we have for the automatic generation of content?
Advantages, disadvantages!

- ▶ Digital Media
- ▶ Digital Images: Raster graphic formats, Vector graphic formats, ... Compression algorithms, ...
- ▶ Digital Video (MPEG, DivX)
- ▶ Digital Audio: (MP3)

- ▶ 13.10. Internet, Information Systems, Web (history, background)
- ▶ 20.10. Web Search Engines, Search in multimedia data
- ▶ 27.10. HTML and CSS
- ▶ 03.11. XML, DTD
- ▶ 10.11. XML, XSLT, XSL-FO

- ▶ 17.11. Server-side Technologies (CGI, PHP) (1)
- ▶ 24.11. Server-side Technologies (Java Servlets) (2)
- ▶ 01.12. Sample Web Application (KU)





- ▶ 15.12. Digital Images (1)
- ▶ 12.01. Digital Images (2)
- ▶ 19.01. Digital Audio
- ▶ 26.01. Digital Video
- ▶ 02.02. Examination

Excercise (KU) - Organization of the course(1/4)

- ▶ No lectures for KU
- ▶ Registration: Required (in TU Online System)
 - ▶ Registration deadline: 01.11.2004
- ▶ Group work: groups of 2-4 people
 - ▶ Project plan (Time estimation, group members responsibilities, ...)
 - ▶ Documentation of Code and Design! (in Text, PDF, HTML, Win-Word)

Excercise (KU) - Organization of the course(2/4)

Goals:

-  Implementing Multimedia Information Systems
-  Learning about different technologies
-  Working in groups
-  To try out something new

Excercise (KU) - Organization of the course(3/4)

- ▶ Deadlines:
 - ▶ Group building and preliminary description of the project (what we are going to do): 01.11.2004
 - ▶ Project plan: 01.12.2004
 - ▶ Completed project: End of the term (01.02.2004)
- ▶ Grading:
 - ▶ Project plan: 25%
 - ▶ Documentation: 25%
 - ▶ Implementation: 50%
- ▶ Project submission via e-mail: Denis Helic (dhelic@iicm.edu)

Excercise (KU) - Organization of the course(4/4)

- ▶ Example of KU
 - ▶ Group registration:
<http://coronet.iicm.edu/denis/students/mmis/group.txt>
 - ▶ Project plan:
<http://coronet.iicm.edu/denis/students/mmis/plan.txt>
 - ▶ Documentation:
<http://coronet.iicm.edu/denis/students/mmis/doc.pdf>

All topics are just proposals! New proposals are more than welcome!

- ▶ Web Applications (includes projects for the third parties): Project plan and documentation still needed!
 - ▶ 90% of students make a Web application
- ▶ Multimedia Presentations (Flash, HM-Card, etc.) (includes projects for the third parties): Project plan and documentation still needed!
- ▶ Media-Database (Web-Interface Design, Search Mechanism, Photos, Music clips, etc.)
- ▶ Artistic Design Works: Applications of the existing multimedia technologies
- ▶ Interactive (Museums, City,...)-Guides

- ▶ Webcam Applications
- ▶ Mp3 Web Radio
- ▶ Innovative Navigation Mechanisms (e.g. Mindmaps)
- ▶ Bookmark Synchronisation from/to IE / Netscape / Opera / Konqueror (Web-based?)
- ▶ Exploring and Demonstrating New Technologies (SVG, DivX, eXtended Server Pages (XSP), XML/XSL-FO, Docbook, ...)
- ▶ Server Side Extensions (PHP, ASP, XSP, Servlets, ...)
- ▶ All about XML/XSL/XSP/...
- ▶ docbook (<http://www.docbook.org>), pdf, ...
- ▶ SVG Applications
- ▶ PHP Nuke / PostNuke, ...) Module
- ▶ XSP Projects

- ▶ Online Shop ALLIB:
<http://rns.tugraz.at/~allib/>
- ▶ Elementary School Eisteich:
<http://www.vs-eisteich.at/>
- ▶ Telematik on the Web (XML/XSL):
<http://www.telematik.edu>
- ▶ Digital Photo Album with Discussion Board (PHP):
<http://scotland.anne.at/>

Completed Projects(2/2)

- ▶ PHP Library for “Portalsoftware”
<http://www.mg20.vc-graz.ac.at>
- ▶ Realtime Juggler (Java Applet)
<http://realtimejuggler.mur.at/>
- ▶ Chess Problems
<http://www.chess.at/probleme/>
- ▶ Song Animations
<http://coronet.iicm.edu/denis/students/mmis/peer.swf>